

REMARKS

The enclosed is responsive to the Examiner's Final Office Action mailed on December 21, 2006, and is being filed pursuant to a Request for Continued Examination (RCE) as provided under 37 CFR 1.114. At the time the Examiner mailed the Final Office Action claims 1-3, 5, 12-19 and 26-32 were pending. By way of the present response the Applicants have: 1) amended claims 1, 12 and 26; 2) added no new claims; and 3) canceled claims 2 and 27-32. As such, claims 1, 3, 5, 12-19 and 26 are now pending. The Applicants respectfully request reconsideration of the present application and the allowance of all claims now represented.

I. REJECTIONS UNDER 35 U.S.C. § 103 OVER KFOURY IN VIEW OF ENGLAND

The Examiner rejected claims 1-3, 5, 12-13, 15-19 and 26-32 under 35 U.S.C. 103(a) as being unpatentable over Kfoury, U.S. Patent 6,549,789 (hereinafter "Kfoury") in view of England, U.S. Patent 6,483,445 (hereinafter "England").

a. Overview of Kfoury

Kfoury discloses a portable electronic device with improved adaptability of user interfaces allowing multi-mode operation and disability access while reducing manufacturing time and cost. See Kfoury at col. 2, lines 13-16. The Kfoury device is capable of switching between multiple user interfaces in a variety of combinations. For example, a user may switch from PDA to radio telephone mode by manipulating the position of a first housing portion relative to a second housing portion. See Kfoury at col. 4., lines 24-27 ("[t]he microprocessor may ... receive signals from a ... second position sensor 134 indicating the rotation

position of the first housing portion 202 relative to the second housing portion"). A user may also switch between modes based on user input commands. Id. at lines 27-28. Additionally, a user may switch between modes based on whether or not the housing is in the open or closed position. See id. at lines 29-34 ("[t]he microprocessor may further receive signals from a first position sensor 133 indicating whether the housing is in the open or closed position"). Kfoury accomplishes this using a switch. See Kfoury col. 6, lines 45-65 ("[w]hen rotating the device from position to position detectors mounted within the first housing portion and coupled to the microprocessor 103, provide housing position information thereto. In the case of the preferred embodiment of the present invention, the detector is a reed switch"). The Kfoury device discloses a multi-mode device which switches between modes either by manual user input or in response to signals received from position sensors indicating the relative orientation of the first housing relative to the second housing. Thus, the disclosure in Kfoury is limited to a multi-mode device capable of mode switching, but only based upon user input or in response to signals received from position sensors.

b. Overview of England

England discloses a keyboard/Keypad and a display output in one device. England attempts to solve the problem of real estate constraints in hand-held electronic devices with smaller form factors. England, col. 1. lines 38-44. The keyboard allows entry of data into the device, and the display provides an information output. Id. The display has a first position in which the display hides the keyboard and a second position in which the keyboard is exposed to allow entry of

data via the keyboard. The display is visible in both the first position and the second position. Id.

c. Independent Claims 1, 12 and 26

Applicant has amended claims 1, 12 and 26 in order to further distinguish the cited art. Amended claim 1 recites as follows:

1. (Currently amended) A data processing apparatus having a memory for storing program code and a processor for processing the program code comprising:

a body having a surface defining a first plane, the body comprising a first user interface including a first plurality of control elements for entering data and performing control operations and a second user interface including a second plurality of control elements for entering data and performing control operations, wherein the first plurality of control elements comprise a keyboard and wherein the second plurality of control elements comprise a set of control buttons;

a display having a display area defining a second plane, the display directly coupled to the data processing apparatus at a pivot point and rotatable around the pivot point in one continuous motion from a first position to a second position wherein the first plane and second plane are substantially parallel when the display is in the first position and the first plane and the second plane are not parallel when the display is in the second position, wherein the display is substantially inverted when in the second position relative to the first position, wherein the display is viewable in both the first position and the second position, wherein an angle between the first plane and the second plane is adjustable over a specified range when the display is in the second position, and wherein both the first and second groups plurality of control elements are exposed when the display is in the second position, and wherein only the second group plurality of control elements are is exposed when the display is in the first position,

an operational mode selection module for selecting between a first operational mode and a second operational mode in response to a plurality of triggering events, said triggering events including:

output from one or more operational mode sensors configured to trigger when the display is rotated from the second position to the first position or from the first position to the second position;

execution of program code from one or more applications currently running on the data processing device; and/or

manual user input by selecting one or more of the plurality of control elements located within said first or second user interfaces; and

image inversion logic to invert images on the display responsive to the selected operational mode,

wherein execution of the program code by the processor causes the operational mode selection module to adjust the functions associated with the first and second plurality of control elements based on the selected operational mode, wherein the first and/or second plurality of control elements perform a first plurality of defined functions when the data processing apparatus is in the first operational mode and perform a second plurality of defined functions when the data processing apparatus is in the second operational mode.

Claims 12 and 26 have been similarly amended. Applicant submits that the above amendments place the application in condition for allowance for the following reasons:

1. Neither the Kfoury nor England references, individually or in combination, satisfy the limitation of "the display directly coupled to the data processing apparatus at a pivot point and rotatable around the pivot point *in one continuous motion from a first position to a second position wherein the first plane and second plane are substantially parallel when the display is in the first position and the first plane and the second plane are not parallel when the display is in the second position ...*."

The Office Action states, "Kfoury teaches ... the display directly coupled to the data processing apparatus at a pivot point (214) and rotatable around the pivot point form a first position (fig. 12) to a second position (fig. 2), wherein the display is

viewable in both the first position and the second position (as shown in the figs. 12 and 2).” [Office Action, pp. 2-3] However, Applicant submits that the combination of Kfoury and England do not satisfy the limitation of “the display directly coupled to the data processing apparatus at a pivot point and rotatable around the pivot point in one continuous motion from a first position to a second position wherein the first plane and second plane are substantially parallel when the display is in the first position and the first plane and the second plane are not parallel when the display is in the second position”

First, the Kfoury reference is not rotatable around the pivot point (214) in “rotatable around the pivot point in one continuous motion from a first position to a second position” as required by the claims. Applicant submits that nowhere in the Kfoury disclosure is the display (212) rotatable around pivot point (214) in a continuous motion from the position of figure 12 to the position of figure 2 as the Office Action asserts. See Kfoury, Figs. 2, 12. On the contrary, the only time the Kfoury device would be able to rotate in such a way would be in two discrete (i.e., not continuous) steps. The first discrete step would be to flip the device open from the position in figure 12 to the position in figure 7. The second discrete step would be to rotate the display (204) with respect to the body (202) from the position in figure 7 to the position in figure 2. The reason for this is that the Kfoury device must be in the open position before it can be pivoted from the position in figure 7 to the position in figure 2. The only rotation of the display (204) with respect to the body (202) that Kfoury discloses is that of figures 8 and 9 which both show that the device is rotated while in the open position. See id. at figs. 8-9. Applicant submits that the Kfoury device could not be rotated around the pivot point (214) “in a continuous

motion from a first position to a second position” because the display (204) would not be able to do so until it was clear of the body (202). This requires the device to be in the fully open position of figures 2, 5, 6, 7, 8 or 9. As a result, Applicant submits that Kfoury fails to satisfy the limitation “rotatable around the pivot point in one continuous motion from a first position to a second position wherein the first plane and second plane are substantially parallel when the display is in the first position and the first plane and the second plane are not parallel when the display is in the second position”

In addition, England fails to cure this deficiency because England does not satisfy the limitation “wherein the first plane and second plane are substantially parallel when the display is in the first position and the first plane and the second plane are not parallel when the display is in the second position” Even though the England device is rotatable around the pivot point (50), the display housing (30) remains in the same plane as the body (32). See England, Figs. 7A, 7B. The rotating motion disclosed in England does not change the angle of the display (30) with respect to the body (32). Thus, as required by the limitation of “wherein the first plane and second plane are substantially parallel when the display is in the first position, and the first plane and the second plane are not parallel when the display is in the second position.” As a result, Applicant submits that the combination of Kfoury and England, individually or in combination, do not satisfy the limitation “the display directly coupled to the data processing apparatus at a pivot point and rotatable around the pivot point in one continuous motion from a first position to a second position wherein the first plane and second plane are substantially parallel when the display is in the first position and the first plane and the second plane are not parallel

when the display is in the second position ...” Accordingly, Applicant respectfully requests withdrawal of the claim rejections.

2. Neither the Kfoury nor England references, individually or in combination, satisfy the limitation of “wherein an angle between the first plane and the second plane is adjustable over a specified range when the display is in the second position.”

The Office Action states, “Kfoury teaches ... an angle between the first and the second plane being adjustable over a specified range when the display is in the second position (fig. 2).” [Office Action, pp. 3-4]. However, nowhere in the Kfoury disclosure does it indicate that the angle is adjustable between the body (202) and the display housing (204). See e.g., Kfoury, figs. 2, 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14. The Office Action asserts that figure 2 indicates “an angle between the first and the second plane being adjustable over a specified range when the display is in the second position,” however, Applicant does not understand how this could be the case. Clearly, figure 2 indicates the Kfoury device in its open position only. There is no indication in figure 2 that the angle in the open position can be adjusted over a specified range. Stated another way, the Kfoury specification only discloses a device being operable in one of two discrete positions. There is no figure which discloses a position of the Kfoury device in other than the fully open position of figures 2, 5, 6, 7, 8 and 9 (where the body and the display are at one discrete angle relative to each other) or the fully closed position of figures 10, 11, 12, and 13 (where the angle between the body and the display is zero). Applicant submits that Kfoury is much different and, therefore, does not satisfy the limitation “wherein an angle between the first plane and the second plane is adjustable over a specified range when the display is in the second position.” In addition, England fails to cure this deficiency because, like the Kfoury device, the England disclosure does not describe

an angle "between the first plane and the second plane is adjustable over a specified range." England only discloses a device in a fully open position (e.g., figures 6 and 7B) and a fully closed position (e.g., figures 1 and 7A). As a result, neither the Kfoury nor England references, individually or in combination, satisfy the limitation of "wherein an angle between the first plane and the second plane is adjustable over a specified range when the display is in the second position." Accordingly, Applicant respectfully requests withdrawal of the claim rejections.

3. It is improper to combine the Kfoury and England references as indicated by the Office Action because there was no motivation to combine at the time of invention.

The Office Action argues that "[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Kfoury with the sensors taught by England to presenting [sic] inverted images according to inverted display for user's convenience." [Office Action, p. 5]. However, Applicant submits that a person of ordinary skill in the art would not have combined the Kfoury and England references in the way indicated by the Office Action because there was no motivation to combine. Kfoury discloses a portable electronic device with improved adaptability of user interfaces allowing multi-mode operation while reducing manufacturing time and cost. See Kfoury at col. 2, lines 13-16. The Kfoury device is capable of switching between multiple user interfaces in a variety of combinations. For example, a user may switch from PDA to radio telephone mode by manipulating the position of a first housing portion relative to a second housing portion. See Kfoury at col. 4., lines 24-27. Thus, the Kfoury device is solving the problem of improving adaptability of user interfaces in portable electronic devices

allowing for multimode operation. See Kfoury at col. 2, lines 13-17. Applicant submits, however, that there is nothing in the Kfoury disclosure to indicate why anyone would want to invert the images on the Kfoury display. The Office Action argues that Kfoury should be modified with the sensors taught by England to invert the Kfoury display for user convenience. Id. Applicant respectfully disagrees. There is nothing in Kfoury that indicates that the image needs to be inverted for “user convenience.” In fact, the opposite is probably true. In figure 12, Kfoury discloses a device in a closed position with a display housing (212) inverted with respect to the display housing (212) of figure 2. See Kfoury, figs. 2, 12. The Office Action assumes that the image should be inverted for “user convenience.” But why is this the case? Applicant submits that the image does not need to be inverted just because the display housing is inverted. It could also be just as convenient to use the device in the position indicated by figure 12 without inverting the image. In fact, it is quite likely that the device pictured in figure 12 is supposed to be used with the control keys (1202) at the top. See Kfoury, fig. 12. In such a configuration, the user can view the screen while entering information into the device using the control keys (1202) without having to invert the image. Applicant submits that the reason the Kfoury reference does not disclose image inversion is because it was not needed with the Kfoury device. A user could use the Kfoury device pictured in figure 12 without inverting the image. Accordingly, there is no reason to invert the image in the Kfoury device and there is no indication in the reference that inverting the image would in any way enhance “user convenience.” As a result, Applicant submits that there was no motivation to combine England with Kfoury at the time of invention because the Kfoury device would not be benefited from the image inversion feature

of England. Accordingly, Applicant submits that the combination is improper and respectfully requests withdrawal of the claim rejections.

CONCLUSION

Applicant respectfully submits that all rejections have been overcome and that all pending claims are in condition for allowance. If there are any additional charges, please charge them to our Deposit Account Number 02-2666. If a telephone conference would facilitate the prosecution of this application, the Examiner is invited to contact Matthew W. Hindman at (408) 720-8300.

Respectfully submitted,

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